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S/058/61/000/009/022/050
A001/A101

AUTHORS: Mokhov, N.V., Kirsh I.V.

TITLE: Changes in the range of concentration fluctuations in dependence on temperature and concentration in binary liquid systems having the upper critical dissolution temperature

PERIODICAL: Referativnyy zhurnal. Fizika, no. 9, 1961, 167, abstract 9D21 (V sb. "Kritich. yavleniya i fluktuatsii v rastvorakh", Moscow, AN SSSR, 1960, 89 - 92)

TEXT: The authors obtained the curves of scattering of X-rays in the solutions: carbon bisulfide with methyl alcohol with 19 (I) and 32 (II) weight per cent of CS_2. I was investigated at 12 and 63°C; II - at 12, 21, 55 and 63°C; II - at 12, 21, 55 and 63°C. Scattering curves are characterized by a sharp fall-off at small angles and a number of peaks. The latter phenomenon is related to monodispersity of non-homogeneous regions. Dimensions R_o of non-homogeneous regions depend on temperature. At 12°C for II, R = 107.4 Å. With temperature increasing up to 63°C, R decreases to 93.7 Å. A comparison of the range

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YOKHOV, N.V.; LAVROVSKIY, Yu. ?.

Fluctuant formations in ether and benzene and their variation with temperature. Ukr. fiz. zhur. 9 no.5:465-470 My '64.
(MIRA 17:8)

1. Dnepropetrovskiy gosudarstvennyy universitet.

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Critical Phenomena and Fluctuations SOV/5469

Shimanskaya, Ye. T., Yu. I. Shimanskiy, and A. Z. Golik [Laboratory of Molecular Physics, Division of Physics, Kiyev State University imeni T. G. Shevchenko]. Investigation of the Critical State of Pure Substances by Tepler's Method 171

Resolution of the Conference on Critical Phenomena and Fluctuations in Solutions 189

AVAILABLE: Library of Congress (QD545.S73)

JP/dfk/jw
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Critical Phenomena and Fluctuations SOV/5469

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Critical Phenomena and Fluctuations. SOV/5469

Roshchina, G. P. [Laboratoriya molekulyarnoy fiziki, Fizicheskiy fakul'tet, Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko -- Laboratory of Molecular Physics, Division of Physics, Kiyev State University imeni T. G. Shevchenko] Investigation of Fluctuations in Solutions by the Method of Light Scattering 109

Skripov, V. P. [Laboratoriya molekulyarnoy fiziki, Ural'skiy politekhnicheskiy institut im. S. M. Kirova -- Laboratory of Molecular Physics, Ural Polytechnic Institute imeni S. M. Kirov]. Special Structural Features of Matter in the Vicinity of the Critical Point and Transfer Phenomena 117

Skripov, V. P., and Yu. D. Kolpakov [Laboratory of Molecular Physics, Ural Polytechnic Institute imeni S. M. Kirov, and the Laboratoriya teplofiziki, Ural'skiy filial AN SSSR -- Thermophysics Laboratory, Ural Branch, AS USSR]. Light Scattering in Carbon Dioxide along Pre- and Post-Critical Isotherms 126

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ment of Experimental Physics, Dnepropetrovsk State University]. Investigation of Density Fluctuations in Ether and Benzene Based on X-Ray Scattering at Narrow Angles 81

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Mokhov, N. V., and Ya. M. Labkovskiy [Kafedra eksperimental'noy fiziki, Dnepropetrovskiy gosudarstvennyy universitet -- Depart-

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Critical Phenomena and Fluctuations SOV/5469

Zatsepina, L. P., and M. I. Shakhparonov [Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Rayleigh Light Scattering in Nitrobenzene -- Cyclohexane and Ethyl Alchol -- Diethylamine Solutions 32

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Krichevskiy, I. R., and N. Ye. Khazanova [Laboratoriya vysokikh davleniy, GIAP -- Laboratory of High-Pressure [Studies], Moscow State Design and Planning Scientific Research Institute of the Nitrogen Industry]. Diffusion of Liquid and Gaseous Solutions in the Critical Region 45

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Critical Phenomena and Fluctuations SOV/5469

Akhadov, Ya. Yu., and M. I. Shakhparonov [Laboratoriya fiziko-khimii rastvorov, Khimicheskiy fakul'tet, Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova -- Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Dielectric Properties of Solutions in a Superhigh Frequency Field and Concentration Fluctuations 14

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Critical Phenomena and Fluctuations

COVERAGE: The book contains 24 of the 26 reports read at the Conference on Critical Phenomena and Fluctuations in Solutions organized by the Chemical Division of Moscow State University, January 26-28, 1960. The reports contain a review of investigations carried out in recent years by Soviet physicists, chemists, and heat power engineers. The Organizational Committee of the Conference was composed of Professor Kh. [illegible], A. Z. Golik, I. R. Krichevskiy (Chairman), V. K. [illegible]ko, A. V. Storonkin, I. Z. Fisher, and M. I. Shakhparonov (Deputy Chairman). References accompany individual articles.

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Amirkhanov, Kh. I., A. M. Kerimov, and B. G. Alibekov [Laboratoriya molekulyarnoy fiziki, Dagestanskiy filial AN SSSR -- Laboratory of Molecular Physics, Dagestan Branch, AS USSR]. Thermophysical Properties of Matter at Critical Temperature 5

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MOKHOV, N.V.

PHASE I BOOK EXPLOITATION SOV/5469

Soveshchaniye po kriticheskim yavleniyam i flyuktuatsiyam v rastvorakh. Moscow, 1960.

Kriticheskiye yavleniya i flyuktuatsii v rastvorakh; trudy soveshchaniya, yanvar' 1960 g. (Critical Phenomena and Fluctuations in Solutions, Transactions of the Conference, January 1960) Moscow, Izd-vo AN SSSR, 1960. 190 p. 2,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova. Khimicheskiy fakul'tet.

Responsible Ed.: M. I. Shakhparonov, Doctor of Chemical Sciences, Professor; Ed. of Publishing House: E. S. Dragunov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This collection of articles is intended for scientific personnel concerned with chemistry, physics, and heat power engineering.

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MOKHOV, N.V.; KIRSH, I.V.

X-ray study of the system: phenol -- water. Zhur.fiz.khim. 30 no.6:1319-1323 Je '56. (MLRA 9:10)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Phenols) (X rays--Diffraction)

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ACCESSION NR: AR4032178 S/0058/64/000/002/E005/E005

SOURCE: Ref. zh. Fiz., Abs. 2E33

AUTHORS: Mokhov, N. V.; Kolesnichenko, K. Ye.

TITLE: On the polymorphism of liquids

CITED SOURCE: Nauchn. zap. Dnepropetr. un-t, v. 61, 1963, 54-57

TOPIC TAGS: liquid, polymorphism, salol, menthol, x-ray diffraction study, structural change, supercooled state, liquid dielectric

TRANSLATION: The results of an x-ray diffraction investigation of salol (from -30 to +90C) and menthol (from +24 to 90C) are presented and offer evidence that no considerable changes occur in the structures of these substances over the entire investigated range of states, including the supercooled state.

DATE ACQ: 31Mar64 SUB CODE: PH, CH ENCL: 00

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KIM, M.F., kand. tekhn. nauk; MOKHOV, N.V., insh.

Practice of using borehold charges with air spaces in Kazakhstan open-pit mines. Vzryv. delo no.51/8:169-175 '63.

1. Kazakhskiy politekhnicheskiy institut.
(Kazakhstan—Blasting)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

NIKUYKO, Ye.; MOKHOV, N.V.

Bevel of bits for combination drilling of holes. Sbor. nauch. trud. Kaz GMI no.19:98-102 '60. (MIRA 15:3)
(Boring machinery)

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MOKHOV, N.N., mashinist krana

Every third man is an efficiency promoter. Transp. stroi. 12 no.1:5-6 Ja '62. (MIRA 17:2)

1. Zavod zhelezobetonnykh konstruktsiy Gosudarstvennogo ordena Lenina i ordena Trudovogo Krasnogo Znameni upravleniya stroitel'stva Moskovskogo metropolitena.

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MOKHOV, Nikolay Ivanovich; SHIRYAYEV, Yu.S., red.; MATSUK, R.V., red.izd-va; MURASHOVA, V.A., tekhn.red.

[Average profit and production costs] Srednisia pribyl' i tsena proizvodstva. Moskva, Gos.izd-vo "Vysshaia shkola," 1961. 25 p. (MIRA 14:4)
(Profit) (Costs, Industrial)

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MOKHOV, N.I.; KHUDOKORMOV, G.N., red.; ROTOVA, R.S., red.izd-va; GOROKHOVA, S.S., tekhn.red.

[Capital and surplus value. Fundamental economic law of capitalism; lecture on a course in political economy] Kapital i pribavochnaia stoimost'. Osnovnoi ekonomicheskii zakon kapitalizma; lektsiia po kursu politicheskoi ekonomii. Moskva, Gos.izd-vo "Vysshaia shkola," 1959. 34 p. (MIRA 13:4)
(Economics)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

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MOKHOV, N. A., brigadir betonshchikov

We are increasing the manufacture of supports for overhead contact systems. Transpstroi 13 no. 11:31 N '63. (MIRA 17:5)

1. Ryazanskiy zavod zhelezobetonnykh konstruktsiy.

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LEVIT, Shul' Mikhovich; MOKHOV, Nikolay Andreyevich; ODUD, Afanasiy Lukich; GROSULA, Ya.S., otv.red.; IVANOVA, R.S., red.izd-va; RYLINA, Yu.V., tekhn.red.

[Moldavian S.S.R.] Moldavskaia SSR. Moskva, Izd-vo Akad.nauk SSSR, 1959. 94 p. (MIRA 12:5)
(Moldavia)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

NAUMOV, I.A.; MOKHOV, L.N.

Resistance of wheat kernels to dynamic loads. Izv. vys. ucheb. zav.; pishch. tekh. no.3:7-13 '60. (MIRA 14:8)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti, Kafedra mukomol'no-krupyanogo proizvodstva.
(Wheat)

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Rapid method of determining the concentration of hydrogen peroxide vapors. Zhur.prikh.khim. 35 no.11:2573-2574 N '62. (MIRA 15:12)
(Hydrogen peroxide) (Air--Analysis)

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Colorimetric quantitative determination of the hydrogen sulfide content of the air. Lab. delo 8 no.3:44-47 Mr '62. (MIRA 15:5)
(COLORIMETRY) (HYDROGEN SULFIDE) (AIR--POLLUTION)

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[Accelerated methods for the determination of injurious gaseous and volatile substances in the air] Uskorennye metody opredeleniia v vozdukhe vrednykh gazoobraznykh i paroobraznykh veshchestv. Moskva, Medgiz, 1962. 146 p. (MIRA 15:7)
(Air--Analysis)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOV, L.A.; MAREYEVA, N.S.

Rapid method of determining the vapor concentrations of aliphatic amino compounds. Zhur.prikl.khim. 34 no.3:699-700 Mr '61. (MIRA 14:5)

(Amino compounds)

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MOKHOV, L. A., CAND CHEM SCI, "~~INVESTIGATION~~ Study of the thesis OF THE CHEMICAL COMPOSITION OF VOLATILE PRODUCTS FORMED IN ~~LAMELLAR~~ oxidation with ATMOSPHERIC OXYGEN ~~OXIDATION~~ OF CERTAIN TYPES OF MINERAL LUBRICATING OILS, UNDER CONDITIONS OF AVIATION OPERATIONS." MOSCOW, 1961. (MIN OF HIGHER AND SEC SPEC ED RSFSR. MOSCOW ORDER OF LENIN ~~CHEMICAL AND TECHNOLOGICAL~~ Chem-Tech INST IMENI D. I. MENDELEYEV). (KL-DV, 11-61, 211).

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MoKhov, L.A.

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S/032/60/026/04/40/046
B010/B004

AUTHORS: 1) Ivanov, N.A., 2) Konstantinov, V.A., 3) Ostapchenko, Yu.P., Pashkevich, V.V., 4) Ivanov, V.V., 5) Mokhov, L.A., Vasilishen, V.P., 6) Smirnova, E.V.

TITLE: News in Brief

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 4, pp. 504-506

TEXT: 1) The author reports on the development of X-ray apparatus for measuring stresses of first order in welded designs. The apparatus (Fig., photograph) comprises a switchboard, high voltage transformer, X-ray tube (in a casing), a stand for the latter, a chamber, and mechanisms for vibrating and rotating the specimen. P.N. Lebedev and P.V. Shepelev collaborated in designing the chamber and the stand. A brief description of the apparatus is given. 2) The author recommends the use of an attachment (Fig.) for taking photographs of coarse-crystalline specimens by the 1-KROB camera. The specimen which is fixed by a holder, is shifted by means of a cam which has the shape of opposite Archimedean spirals. Cam rotation shifts the specimen by $\sin^2\alpha$, where α = angle

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of specimen displacement vertical to the incident X-ray. 3) The authors describe a dismountable vacuum tube (Fig.) for X-ray structural analysis. The tube casing has three openings for the X-rays and one for evacuation. The copper anode has a titanium mirror, the construction of which is described. 4) The author briefly describes a simple device (Fig., photograph) for lowering the chamber of the ISP-22 quartz spectrograph. 5) The authors describe a simple apparatus for sampling gas under reduced pressure. The apparatus (Fig., diagram) consists of two absorbers, a rheometer, and a vacuum pump. A short explanation of the diagram is given. 6) The author discusses the application of somewhat modified Taylor condensers for investigating rectification processes of ternary systems in the distillates of which demixing occurs. The mode of operation of the condensers is described by means of a diagram (Fig.). There are 6 figures and 1 reference.

ASSOCIATION: 6) Leningradskiy gosudarstvennyy universitet (Leningrad State University)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

AUTHORS: Mokhov, L.A., Udalov, Yu.F., Khalturin, V.S. SOV/80-32-2-46/56

TITLE: Special Indicator Pipes for the Fast Determination of Nitrogen Oxides in the Air of Industrial Buildings (Spetsial'nyye indikatornyye trubki dlya bystrogo opredeleniya okislov azota v vozdukhe promyshlennykh pomeshcheniy)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 2, pp 452-453 (USSR)

ABSTRACT: An indicator made of n-aminobenzoic acid and N-acid on silicagel is used in pipes for the determination of nitrogen oxides in air. The indicator has a raspberry-color which changes in the presence of nitrogen oxides. The color is compared with a standard scale which is obtained by testing known oxide concentrations. The sensitivity of the apparatus is 0.0005 mg/l. The indicator is specific, i.e. it does not change color in the presence of ether, hydrochloric acid, mercury, etc.
There is 1 table and 9 references, 8 of which are Soviet and 1 German.

SUBMITTED: August 23, 1957

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MOKHOV, L.A. (Moskva); MALYSHKIN, B.Ye. (Moskva)

Determination of aliphatic amino compounds. Gig. i san. 24 no.9:81 S '59. (MIRA 13:1)

(AMINO COMPOUNDS)

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MOKHOV, L.A.; DZHDZICHEK, V.P.

Rapid method for determining ozone in air. Zav.lab. [illegible]-1305 '59. (MIRA 13:4)

(Ozone)

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DEMIDOV, A.V.; MOKHOV, L.A.; MALYSHKIN, B.Ye.

Rapid method of quantitative determination of fuel vapors in the air with tube indicators. Lab.delo 5 no.5:39-41 S-O '59.
(MIRA 12:12)

(INDICATORS AND TEST PAPERS) (LIQUID FUELS)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

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MOKHOV, L.A.

Method for preparing fuchsin sulfuric acid. Lab.delo [illegible] no.6:46-47 N-D '58 (MIRA 11:12)

(FUCHSIN)
(SULFURIC ACID)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOV, L.A.; KHALTURIN, V.S.

Rapid method for determining nitrogen oxides in air. Lab.delo 4 no.2:26-27 Mr-Ap '58. (MIRA 11:4)
(NITROGEN OXIDES) (AIR--ANALYSIS)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

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MOKHOV, L.A. (Moskva); UDALOV, Yu.F. (Moskva); SHINKARENKO, I.P. (Moskva)

Ointment for protecting the human skin from ultraviolet rays.
Vest.derm. i ven. 31 no.1:48-49 Ja-F '57. (MLRA 10:7)
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)
(BENZOIC ACID) (OINTMENTS)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOV, L.A.

DEMIDOV, A.V., podpolkovnik meditsinskoy sluzhby; MOKHOV, L.A., inshener-leytenant

Determination of air humidity with indicator tubes. Gig. i san. 22 no.2:64-65 F '57 (MLRA 10:4)
(HUMIDITY, determ.
indicator tube technic)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOV, L.A.; DEMIDOV, A.V.

Method for determining carbon monoxide in the air by means of indicator tubes. Lab. delo 3 no.1:48-50 Ja-F '57 (MLRA 10:4)
(AIR--ANALYSIS) (CARBON MONOXIDE)

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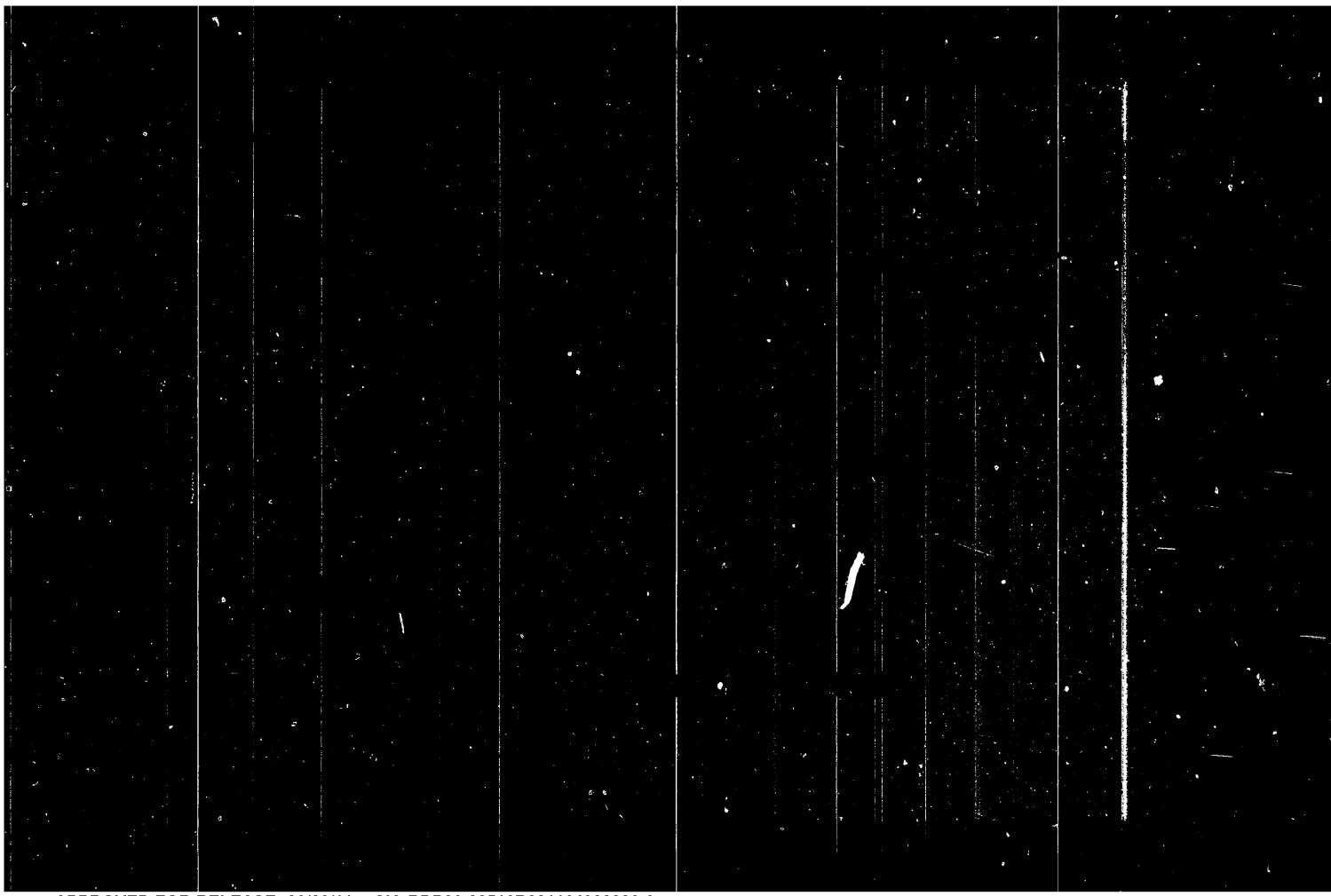

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USSR / Chemical
and Their Application

Medicinals. Vitamins. Antibiotics.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32285

Author : Mokhov L.A.

Title : Conditions of Formation of Crystalline Hydrochloride of 2-Amino-Thiazol

Orig Pub: Zh. prikl. khimii, 1956, 29, No 5, 804-805

Abstract: Description of the procedure of preparing crystalline 2-aminothiazol hydrochloride (I) (used in the production of norsulfazol) by mixing crystalline hydrate of $ClCH_2CHO$ (II) with NH_2CSNH_2 (III). Mixture of 14.5 g II and 9.8 g III is thoroughly ground in a mortar and allowed to stand for 12 hours; the reaction takes place

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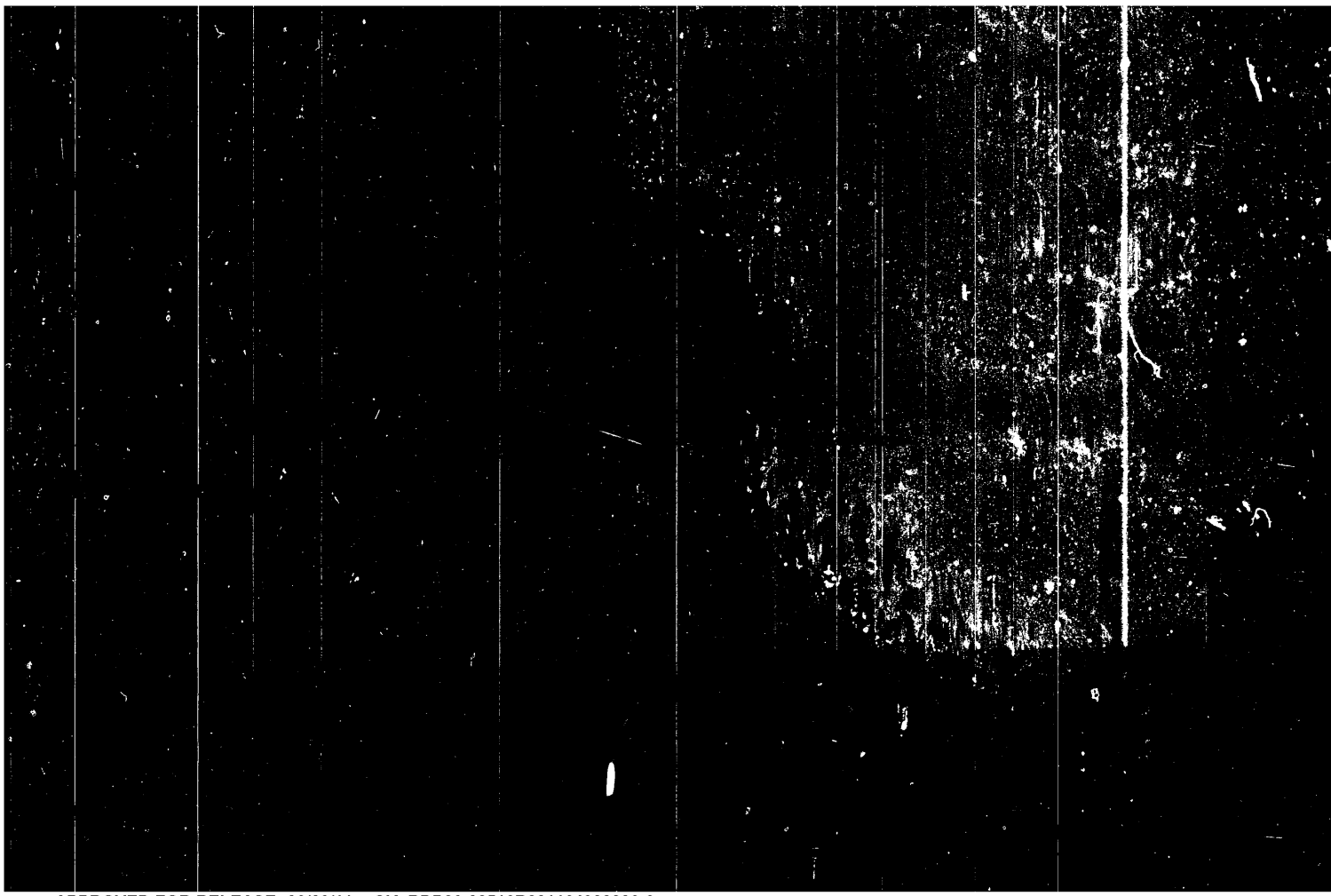

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L 05772-67
ACC NR: AR6031886

consequently, anomalous conductivity, the specially prepared specimens must be subjected to a preliminary optical treatment either with white light or with light with $\lambda < 5300$ A . F. Nad'. [Translation of abstract]

SUB CODE: 20/

Card 2/2

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L 05771-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/AT

ACC NR: AR6031886 SOURCE CODE: UR/0058/66/000/006/E093/E093

53
2

AUTHOR: Mokhov, G. D.; Bazakutsa, V. A.

TITLE: Optical processing of selenium specimens possessing anomalous photoconductivity

SOURCE: Ref. zh. Fizika, Abs. 6E733

REF SOURCE: Vestn. Khar'kovsk. politekhn. in-ta, no. 2(50), 1965, 110-115

TOPIC TAGS: selenium, photoconductivity, anomalous photoconductivity, photoresistance, photoeffect, photoresponse

ABSTRACT: The anomalous photoconductivity of Se layers obtained by vapor deposition under vacuum on glass substrates and treated in Hg vapors was investigated. For some of these photoresistances, the photoresponse value does not depend on incident light intensity but only on the wavelength. It is shown that only those Se-photoresistances with inherent simultaneous presence of both positive and negative photoeffects possess anomalous photoconductivity. It was found that the presence of "quasidark" conductivity is a sign that the specimen possesses anomalous photoconductivity. To obtain "quasidark" conductivity and,

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intensity, temperature, and the time [illegible]. Apparently these features are related to the fact that both the processes which bring about positive photoconductivity and those which result in nagative photoconductivity, and which have different time curves, contribute to the photoresponse. F. Nad. [Translation of abstract]

SUB CODE: 20/

Card 2/2 egl

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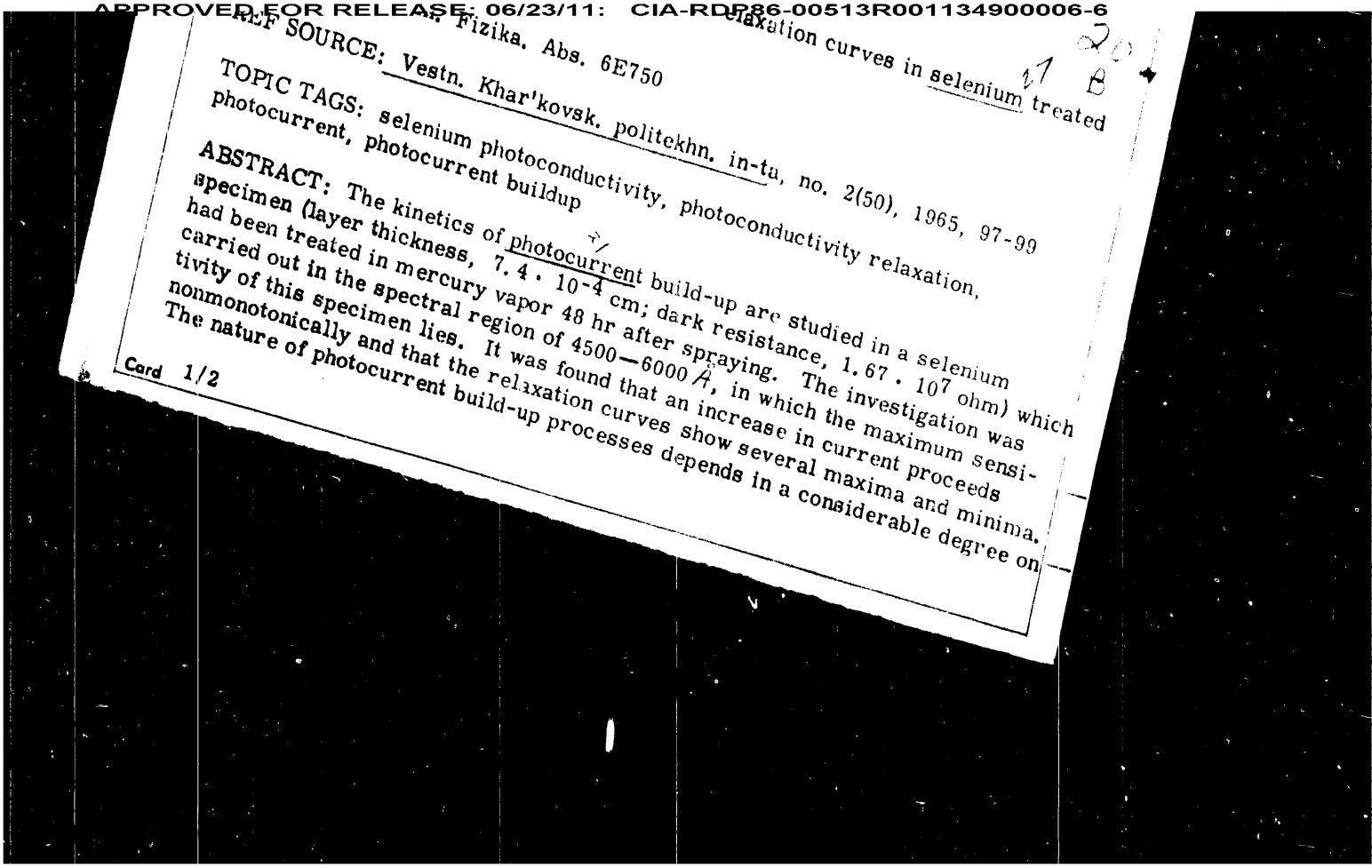

Ref. Fizika. Abs. 6E750

relaxation curves in selenium treated

REF SOURCE: Vestn. Khar'kovsk. politekhn. in-ta, no. 2(50), 1965, 97-99

TOPIC TAGS: selenium photoconductivity, photoconductivity relaxation, photocurrent, photocurrent buildup

ABSTRACT: The kinetics of photocurrent build-up are studied in a selenium specimen (layer thickness, $7.4 \cdot 10^{-4}$ cm; dark resistance, $1.67 \cdot 10^{7}$ ohm) which had been treated in mercury vapor 48 hr after spraying. The investigation was carried out in the spectral region of 4500—6000 Å, in which the maximum sensitivity of this specimen lies. It was found that an increase in current proceeds nonmonotonically and that the relaxation curves show several maxima and minima. The nature of photocurrent build-up processes depends in a considerable degree on

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was moved relative to the optical probe with the aid of a micrometer screw, so that the photosensitivity of different sections of the sample could be determined. The spectral components were determined with a monochromator (UM-2). The sample preparation technology was described in the earlier paper. The maximum relative photosensitivity (increase of photosensitivity above its dark value) occurred at approximately 0.25 mm from the edge of the metallic electrode with which the photosensitive region is in contact, regardless of the wavelength of the applied light. In the case of wavelengths longer than 5300 Å, all the regions of the selenium layer had only positive photoconductivity. At lower wavelengths, certain sections of the region next to the electrode had negative photoconductivity. Qualitatively comparable results were obtained for both positive and negative voltage applied to the electrode. The results confirm the earlier deductions that the mercury atoms do not penetrate uniformly in the electrode regions of the investigated samples during production of the layer. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 10Jul64/ ORIG REF: 005/

Card 2/2

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

L 2[illegible]-66 EWT(l)/EWP(m)/EWA(f)/EWG(m) WW/JD

ACC NR: AP6008117 SOURCE CODE: UR/0139/66/000/001/0182/0183

AUTHORS: Mokhov, G. D.; Bavykina, V. N.; Bazakutsa, V. A. 26 B

ORG: Khar'kov Polytechnic Institute (Khar'kovskiy politekhnicheskiy institut)

TITLE: Distribution of the photosensitivity of selenium samples having anomalous photoconductivity 27

SOURCE: IVUZ. Fizika, no. 1, 1966, 182-183

TOPIC TAGS: selenium, photoconductivity, photosensitivity, mercury containing alloy

ABSTRACT: This is a continuation of earlier studies of the photoconductivity of selenium treated with mercury vapor (Izv. vuzov SSSR, Fizika, No. 5, 182, 1964 and others). In the present paper the authors present experimental results of an investigation of the distribution of the photosensitivity in the light-sensitive region near the electrode. The investigation was made with a specially prepared setup, in which an optical probe of width 0.1 mm was produced. The sample 2

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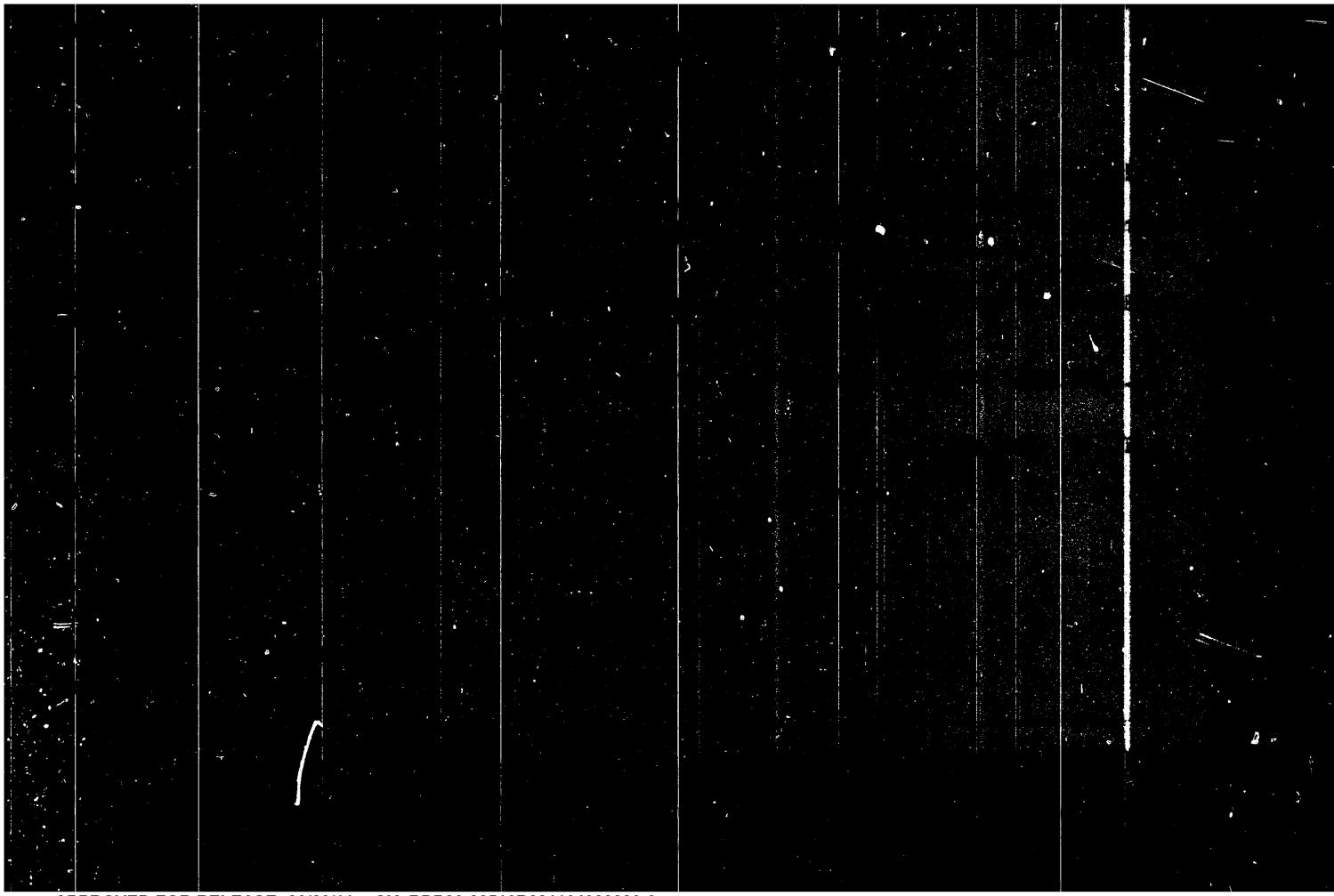

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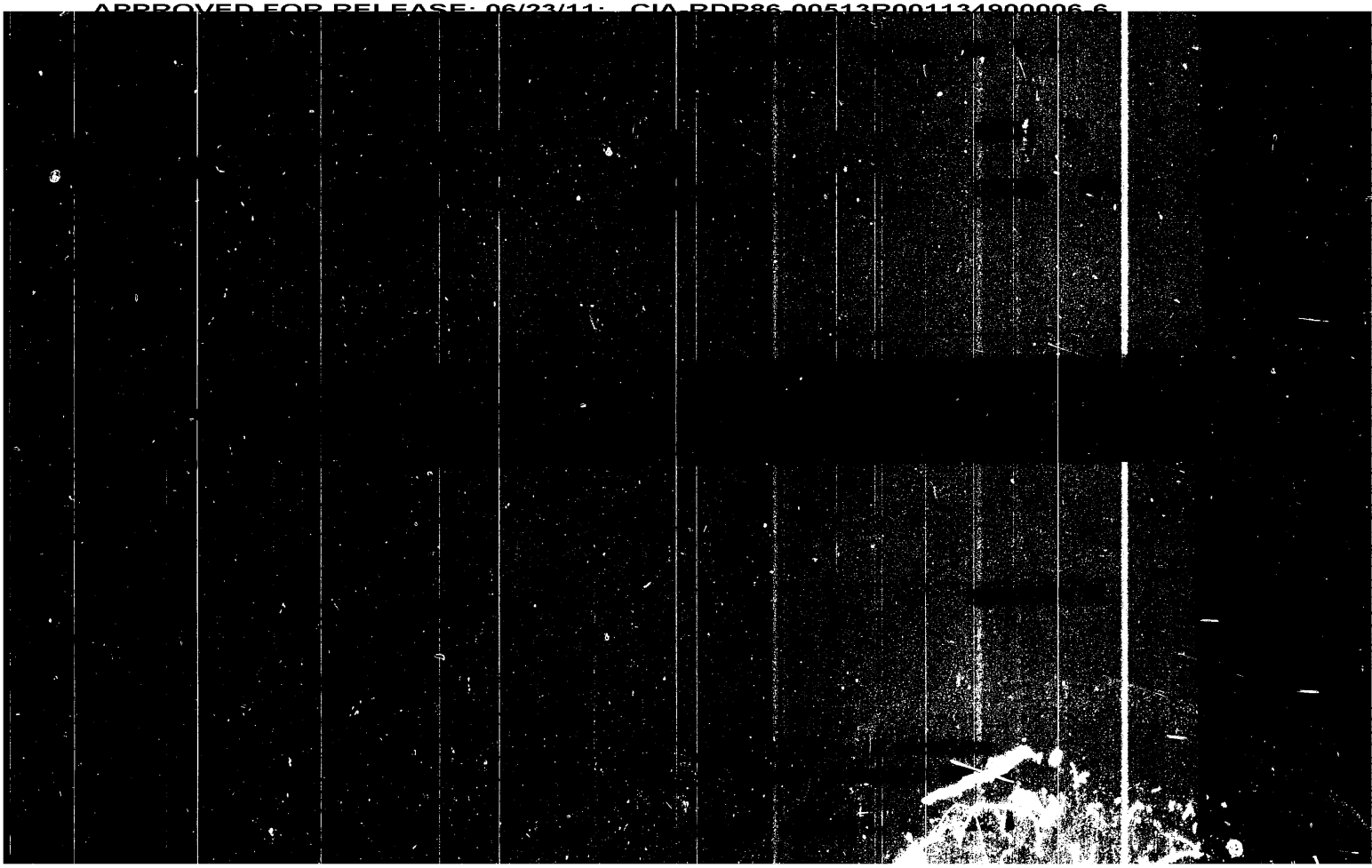

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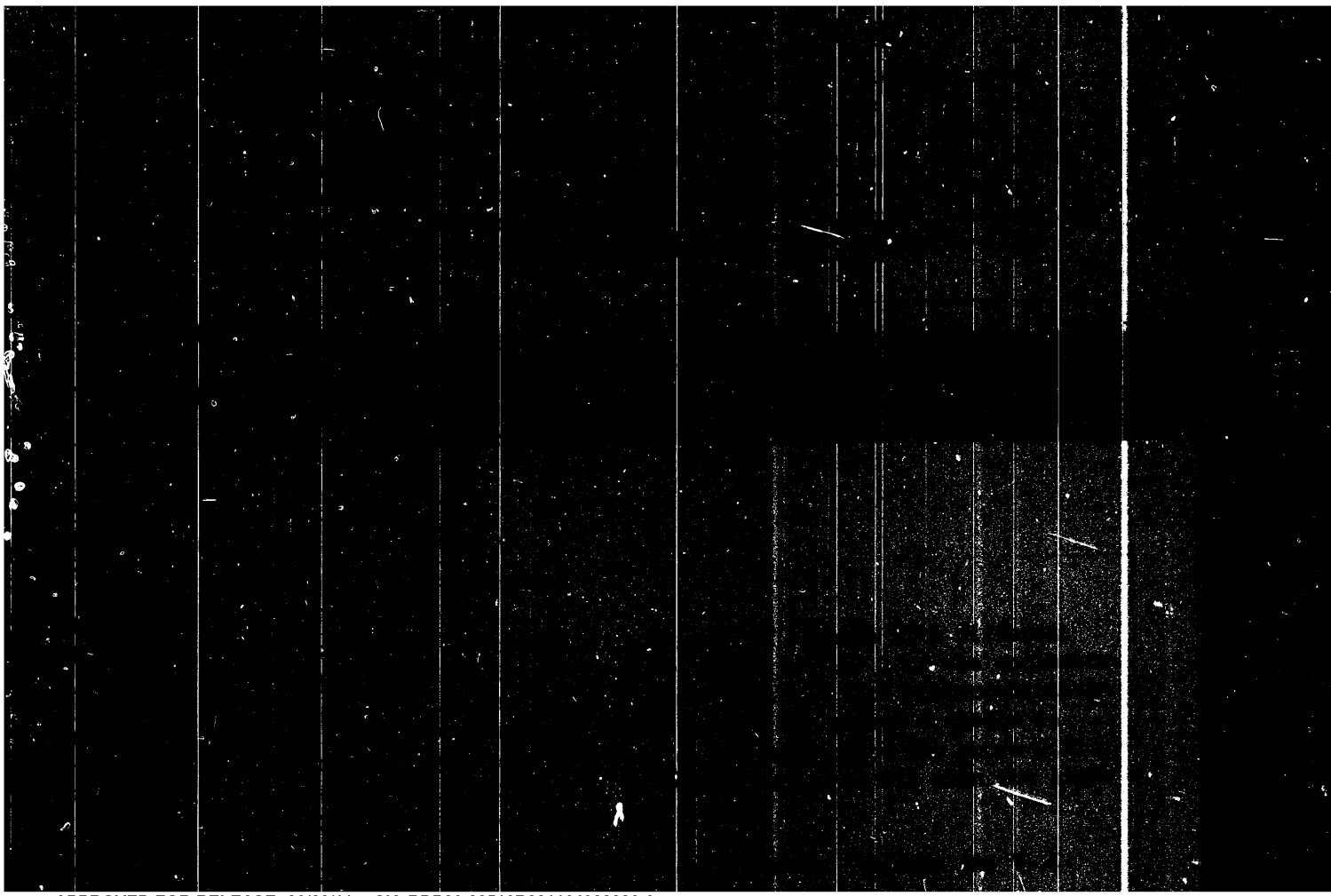

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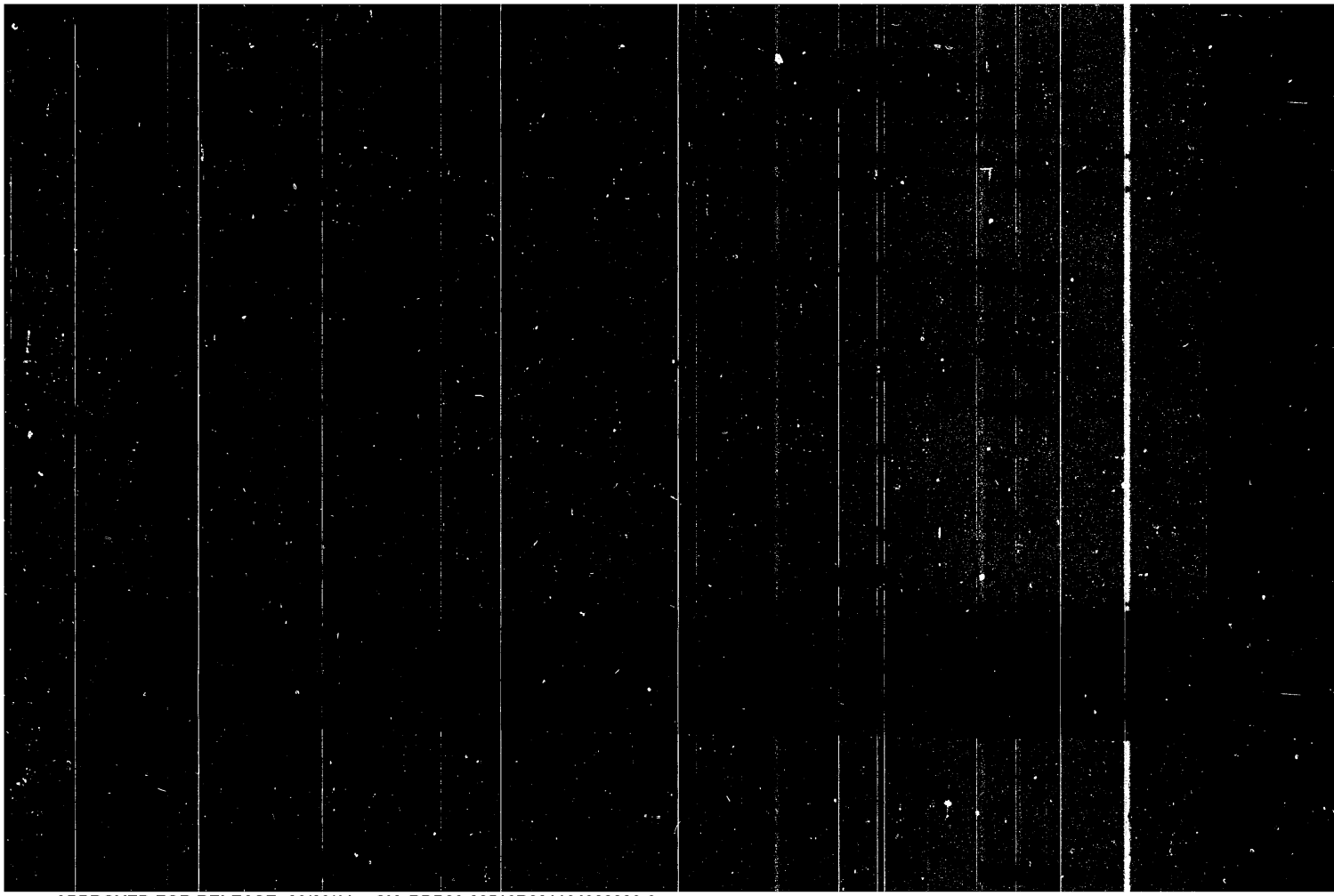

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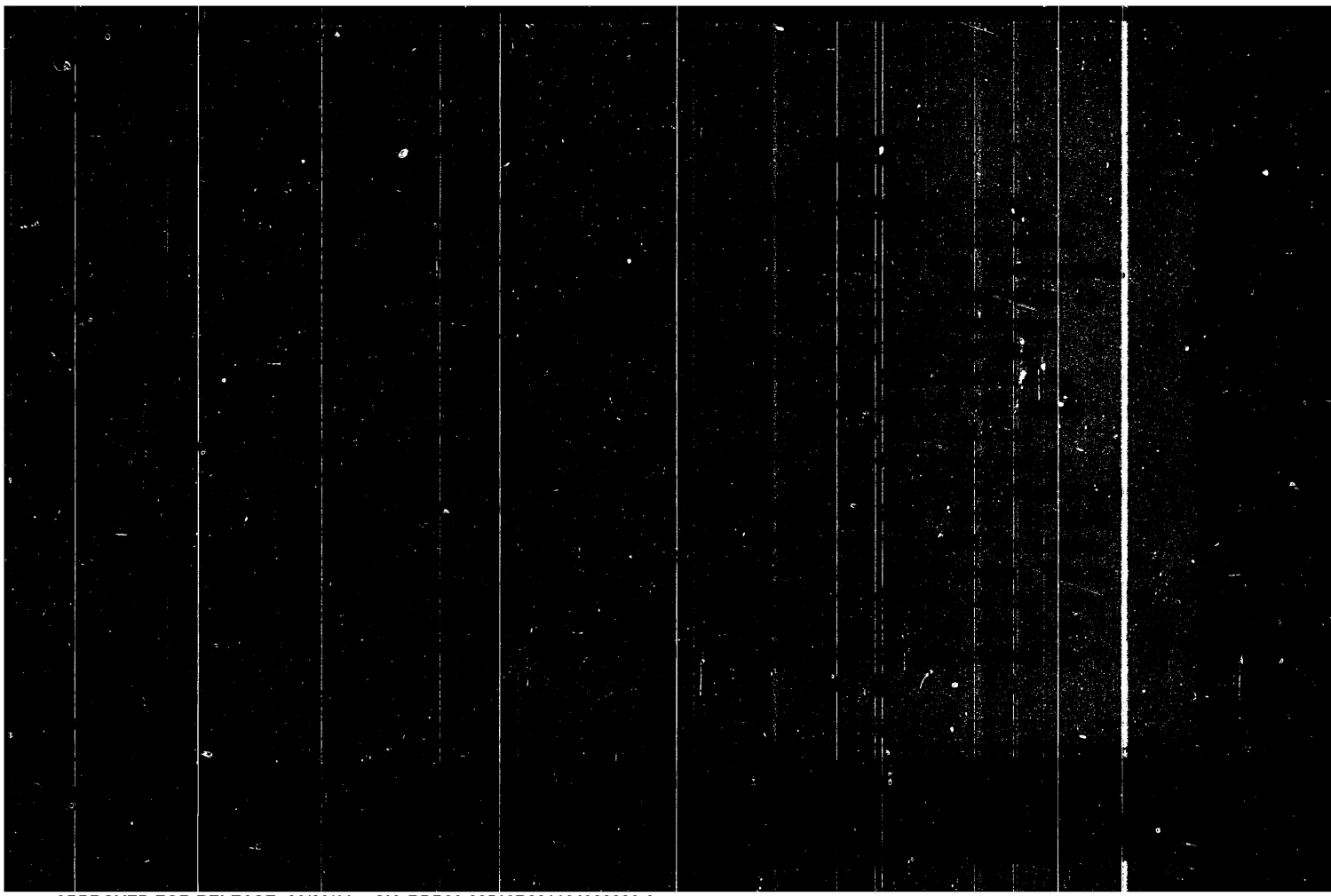

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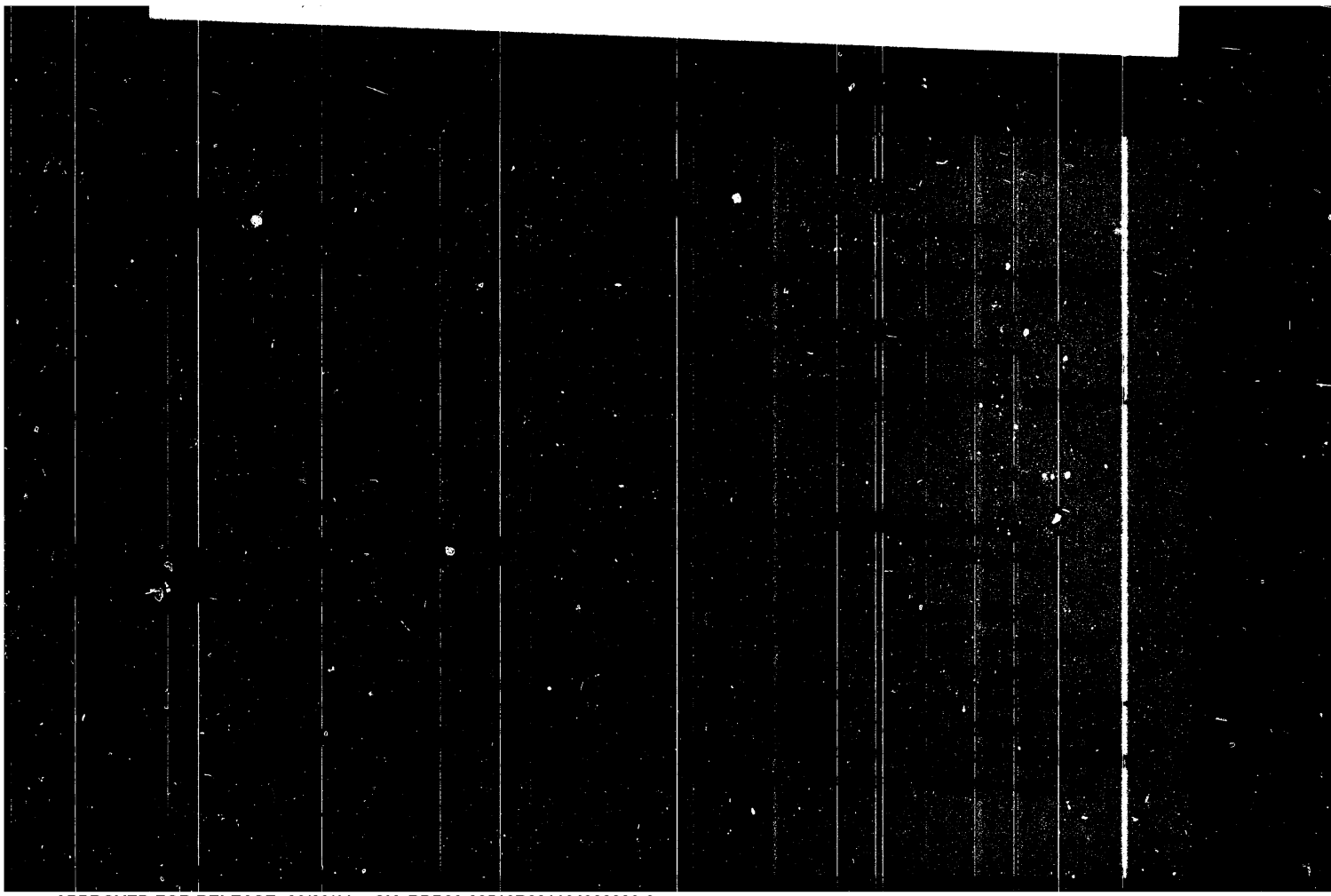

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28084
S/181/61/003/009/016/039
B102/B104

9.4177 (1035)
26.2421

AUTHORS: Korsunskiy, M. I., Pastushuk, N. S., and Mokhov, G. D.

TITLE: A new type of photoconductivity

PERIODICAL: Fizika tverdogo tela, v. 3, no. 9, 1961, 2667-2669

TEXT: The authors discovered a new type of photoconductivity in mercury-doped selenium. They studied the dependence of this photoconductivity on wavelength and intensity of illumination. The specimens were irradiated with monochromatic light in a vacuum chamber (10^{-6} mm Hg) and the photoconductivity change was recorded by a loop oscilloscope. The curves $\sigma = f(t)$ for illumination wavelengths between 0.425-0.715μ were taken and dark conductivity was measured. It was found that upon illumination with $\lambda = 0.535\mu$ conductivity did not change, at $\lambda > 0.535\mu$ it increased and at $\lambda < 0.535\mu$ it decreased. The transient period of a steady conductivity is much shorter in illumination with short-wave light than in illumination with light of longer wavelengths. On illumination with any monochromatic light (except for $\lambda = 0.425\mu$) the photoconductivity of the specimen

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Exclusion of the influence ...

The results are random and uncontrollable. Nevertheless, some samples could be obtained for which $\Delta\sigma_{max}$ differs but little from $\Delta\sigma_{ph\ max}$, and $(\Delta r/r)\cdot 100\%$ at $2.5\cdot 10^{-6}$ w/cm^2 reaches a value of 85-97%. The table gives results of measurement in the range 360-460 mμ. The samples investigated remained unchanged for two years under atmospheric conditions and gave reproducible results. There are 6 figures, 1 table, and 2 Soviet-bloc references.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut imeni V. I. Lenina (Khar'kov Polytechnic Institute imeni V. I. Lenin)

SUBMITTED: April 1, 1960 (initially); January 20, 1961 (after revision)

Номер образца (1)	R, ом (5)	$\frac{r_0}{r}$	$\frac{r_{\phi_n}}{r}$	$\frac{\Delta\sigma_m}{\sigma}$	$\frac{\Delta\sigma_{\phi_n m}}{\sigma_{\phi_n}}$	$\frac{\Delta\sigma_m}{I}$, ом$^{-1}\cdot$ вт$^{-1}$ (6)
2	$7.40\cdot 10^8$	0.58	0.42	0.63	11.40	$6.55\cdot 10^{-3}$
3	$2.17\cdot 10^8$	0.65	0.35	0.36	3.25	$13.00\cdot 10^{-3}$
56	$1.41\cdot 10^9$	0.11	0.89	5.43	23.6	$0.68\cdot 10^{-3}$
6	$10.12\cdot 10^9$	0.003	0.997	50.50	53.50	$0.77\cdot 10^{-3}$

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

Exclusion of the influence ...

of light) it is written: $\Delta\sigma = f(I)/r^2\sigma_{ph}^2\left[1 + f(I)/r\sigma_0\sigma_{ph}\right]$ (2). For $\Delta\sigma = \Delta\sigma_{max}$: $1/\Delta\sigma_{max} = (r^2/r_{ph}^2)\left[1/f(I)\right] + r_0 r/r_{ph}$ holds (3). Introducing $a = r^2/r_{ph}^2$, $b = r_0 r/r_{ph}$ (4) one obtains: $1/\Delta\sigma_{max} = a/f(I) + b$ (5). If the function $1/\Delta\sigma_{max} = 1/f(I)$ becomes linear, a and b can be calculated and r_0 and r_{ph} determined from them. I) For typical samples for which the change of resistance $(\Delta r/r)\cdot 100\%$ corresponds to a $\Delta\sigma_{max}$ of 20-30%, $1/\Delta\sigma_{max} = \varphi\left[1/f(I)\right]$ was determined at 360-460, 600-720 mμ (Fig. 2). The existence of the non-photoactive resistance r_0 was thus confirmed. For intensities 10^{-5}-10^{-3} w/cm^2 the condition $\Delta\sigma_{ph\ max} = \alpha\sqrt{I}$ is satisfied. The real photoeffect $\Delta\sigma_{ph\ max}$ is several times larger than the observed $\Delta\sigma_{max}$ and is masked by r_0. Experiments were undertaken to obtain samples with small r_0. [Abstracter's note: The method of these experiments is not given]

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9,4300 (1138, 1147, 1164)

S/181/61/003/005/009/042
B101/B214

26.2421

AUTHORS: Korsunovskiy, M. I., Pastushuk, N. S., and Mokhov, G. D.

TITLE: Exclusion of the influence of non-photoconductive layers in the investigation of the photoconductivity of layers of amorphous selenium with mercury impurity

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1366-1370

TEXT: Amorphous selenium treated with mercury vapor shows an anomalous lux-ampere characteristic. The maximum photoeffect tends to a constant saturation value. From this the interference is drawn that the samples studied possess a non-photoactive resistance r_0. The object of the present work was to detect its existence. A start is made from the fact that the experimentally measured resistance r can be put as $r_{ph} + r_0$, where r_{ph} is the resistance that alters with exposure. Let $\Delta\sigma$ be the observed change of conductivity; $\Delta\sigma_{ph}$ its true value; and σ_0, σ_{ph} the dark conductivity of the non-photoactive, and the photoactive part, respectively. Then $\Delta\sigma = \Delta\sigma_{ph}/r^2\sigma_{ph}^2(1 + \Delta\sigma_{ph}/r\sigma_0\sigma_{ph})$ (1). Since $\Delta\sigma_{ph} = f(I)$ (I = intensity

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83362

S/139/60/000/004/020/033
E201/E591

Photoconductivity Kinetics of Amorphous Selenium Layers Treated with Mercury Vapour

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut imeni V. I. Lenina
(Khar'kov Polytechnical Institute imeni V. I. Lenin)

SUBMITTED: June 29, 1959 (initially)
March 26, 1960 (after revision)

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Photoconductivity Kinetics of Amorphous Selenium Layers Treated with Mercury Vapour

irrespective of the polarity of the applied voltage. Initially the photoconductivity rose very sharply, reached a maximum ($\Delta\sigma_{max}$) and then decreased slowly reaching a steady-state value ($\Delta\sigma_c$) in 4-5 min. A family of oscillograms representing the dependence $\sigma = \sigma_d \pm \Delta\sigma = \varphi(t)$, where σ_d is the dark conductivity, is shown in Fig.4. Figs.5-10 show, as a function of the intensity of illumination, $\left(\frac{d\sigma}{dt}\right)_{t \to 0}$ (Figs. 5 and 6), $\Delta\sigma_{max}$ (Figs.7 and 8), $\Delta\sigma_c$ (Figs. 9 and 10). It was found that the photoconductivity kinetics of mercury-treated selenium layers depended strongly on the wavelength of illumination, on its intensity and on the polarity of the applied electric field. The negative photoconductivity was observed under illumination with short-wavelength light of sufficient intensity. The positive photoconductivity decay became less pronounced with increase of wavelength at a fixed illumination intensity. There are 10 figures and 5 references: 4 Soviet and 1 French.

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83362

S/139/60/000/004/020/033
E201/E591

9.4177

24.3600

AUTHORS: Korsunskiy, M.I., Pastushuk, N.S. and Mokhov, G.D.

TITLE: Photoconductivity Kinetics of Amorphous Selenium Layers Treated with Mercury Vapour

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1960, No.4, pp.167-172

TEXT: The paper deals with photoconductivity of amorphous selenium layers treated with mercury vapour and exhibiting both positive and negative photoconductivity (positive means here enhancement of the electrical conductivity by illumination, negative means reduction of the electrical conductivity). Selenium layers were produced by vacuum deposition (at 10^{-5} mm Hg) on glass plates. The layers were from 2×10^{-4} to 3.5×10^{-4} cm thick. The electrode positions are shown in Fig.1. The experiments extended over the following wavelength ranges: 360-460, 530-580, 600-720, 740-1000 mμ. Figs. 2 and 3 give typical oscillograms showing the dependence of the change in the conductance ($\Delta\sigma$) with time (t) under illumination with light of 10^{-4} W/cm^2 intensity. The oscillograms show that illumination raised the conductivity

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82550

On the Photoconductivity of Sulfur Layers Exposed to the Action of Mercury Vapor

S/181/60/002/007/030/042
B006/B060

ASSOCIATION: Khar'kovskiy Politekhnicheskiy institut (Khar'kov Polytechnic Institute)

SUBMITTED: November 19, 1959

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

82550

On the Photoconductivity of Sulfur Layers Exposed to the Action of Mercury Vapor

S/181/60/002/007/030/042
B006/B060

12 - 15 minutes with the use of sunlight. It was further shown that photo activity differed in various parts of the sample; the differences amounted to almost one order of magnitude. The highest activity was exhibited by the layer at the points over an electrode. A loop oscilloscope with a d-c amplifier and a galvanometer was used for the measurement of photoconductivity, and a projection lamp (400 w) served as light source. Spectral measurements were made on a monochromator of the type ZM-2 (UM-2). Fig. 2 shows $\Delta\sigma = f(t)$ for a sample irradiated with $\lambda = 453$ and 645 mμ at room temperature. At $\lambda = 453$ mμ photoconductivity rises, passes through a maximum, and drops (below the value of darkness) deeply into the negative range (negative photoconductivity). At $\lambda = 645$ mμ a rise is observable with subsequent saturation (sluggish positive photoconductivity). Such a different behavior is also found if the conductivity of the sample whose photoconductivity was effected by 453 and 645 mμ, respectively, is measured in the dark (Fig. 3). The dark conductivity is maintained for 2.5 hours in both cases. There are 3 figures and 4 references: 2 Soviet and 2 British.

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MOKHOV, G D

82550

S/181/60/002/007/030/042
B006/B060

24.7700

AUTHORS: Korsunskiy, M. I., Pastushuk, N. S., Mokhov, G. D.

TITLE: On the Photoconductivity of Sulfur Layers Exposed to the Action of Mercury Vapor

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 7, pp. 1581-1583

TEXT: In a previous paper (Ref. 1) the authors had already found that layers of amorphous selenium treated with mercury vapor exhibited both positive and negative photoconductivity. The development of photoconduction proved to be complicated and very sluggish. In the present paper the authors examined sulfur layers. The samples were prepared by vacuum sputtering of sulfur (10^{-5} torr) onto a glass plate 18 mm in diameter. Gold electrodes were applied at intervals of 3 - 4 mm (Fig. 1). The sulfur layer had a thickness of $(2-3).10^{-4}$ cm and a dark resistance of 10^{12} ohms. After it had been treated with mercury vapor, its resistance dropped to 10^{6} ohms and less, depending on the duration of treatment. At room temperature the treatment took 4 - 5 days; at 70°C, 7 - 8 hours. The authors found a peculiar catalytic action of sunlight: The treatment took no more than

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S/058/62/000/007/045/068
A061/A101

Negative photoconductivity in...

the spectral dependence of absorption was measured in the near infrared (up to 2.5 μ).

/B

V. Sidorov

[Abstracter's note: Complete translation]

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

9.4177

S/058/62/000/007/045/068
A061/A101

AUTHORS: Korsunskiy, M. I., Pastushuk, N. S., Litvinova, L. B., Mokhov, G. D., Reznik, M. B.

TITLE: Negative photoconductivity in mercury-doped selenium layers

PERIODICAL: Referativnyy zhurnal, Fizika, no. 7, 1962, 32, abstract 7E245 (In collection: "Fotoelektr. i optich. yavleniya v poluprovodnikakh". Kiyev, AN USSR, 1959, 220 - 226)

/B

TEXT: The photoconductivity of amorphous Se layers doped with mercury vapors was investigated. The layers were produced by evaporation of Se in vacuum and condensation on a glass backing. A comparatively low-inertial positive photoconductivity and an inertial negative one were observed when illuminating the layers with white light. On an increase in the concentration of mercury atoms in the layers the value of positive photoconductivity dropped, while that of negative photoconductivity rose to a certain limit, and thereupon dropped. Both negative and positive photoconductivity were examined as functions of the layer temperature, of the intensity and the spectral composition of light. In addition,

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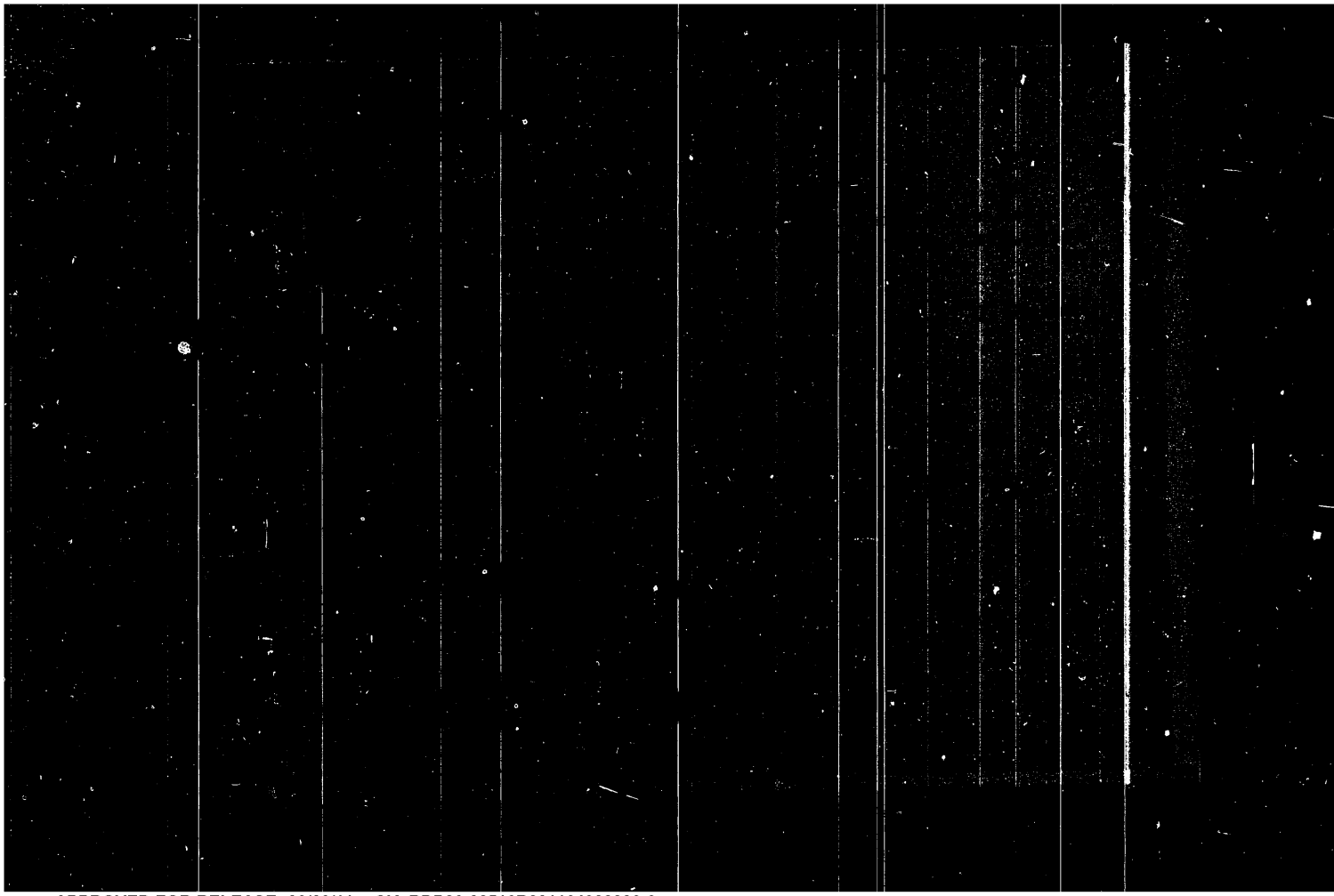

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MOKHOV, Boris Ivanovich; D'YACHENKO, Aleksandr Akimovich; FREYMAN, Tamara Iosifovna; MILLIONSHCHIKOV, A.D., otv. red.

[Payments and compensations from budget funds to organizations operating on a profit] Vyplaty i vozmeshcheniia khozorganam sredstv iz biudzheta. Moskva, Finansy, 1965. 86 p. (MIRA 18:7)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

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MOKHOV, B.

Participation of financial organs in establishing turnover tax rates. Fin. SSSR 37 no.11:59-63 N'63. (MIRA 17:2)

1. Nachal'nik otdela Ministerstva finansov RSFSR.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

SOV/115-58-1-7/50

AUTHORS: Omel'chenko, A.I., and Mokhov, A.V. (deceased)

TITLE: An Optical Instrument for Measuring the Radius of Curves (Opticheskiy pribor dlya izmereniya radiusa zakrugleniya)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 1, pp 18 - 19 (USSR)

ABSTRACT: This is a detailed description of the design and operations of a new optical device, consisting of a double microscope, for checking the radius of edges of small bores. The device produces an "optic section", visible in the focus plane of the ocular, from which the bore radius must be computed. The absolute error of measurements on radiuses of 0.5 to 0.8 mm is about 0.03 to 0.05 mm. There is 1 photo, 1 diagram and 2 Soviet references.

1. Curved profiles--Measurement 2. Optical instruments--Performance

Card 1/1

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L 46955-66 EWI(m)/EWP(w)/T/EWP(t)/ETI LJP(c) JD

ACC NR: AP6031733 (A) SOURCE CODE: UR/0182/66/000/009/0038/0038

AUTHOR: Mokhov, A. I.; Danilin, S. I.

ORG: none

TITLE: Improved heating conditions for 1Kh16N4B steel ingots and billets

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 9, 1966, 38

TOPIC TAGS: stainless steel, steel ingot heating, metal forging/ 1Kh16N4B stainless steel

ABSTRACT: The Volgograd Machine Building Plant makes ring forgings from 3.7-ton 1Kh16N4B stainless-steel ingots. Until recently the heating of ingots required 35—40 hr. Now, cold ingots are charged into a furnace having a temperature of max 1000C and held at this temperature for 4—5 hr. The total heating time was reduced to 15—17 hr. It was found that this accelerated heating procedure yielded forgings with satisfactory macro- and microstructure and mechanical properties. The respective tensile strength of tangential and longitudinal specimens was 134.2 and 134.0 kg/mm^2, yield strength 118.7 and 98.7 kg/mm^2, elongation 13.7—10.7%, reduction of area 53.5—51.0% and notch toughness 8.7—11.5 mkg/cm^2, all greatly exceeding the requirements of specifications. Orig. art. has: 2 tables. [ND]

SUB CODE: 13/ SUBM DATE: none/ ATD PRESS: 5088

Card 1/1 JS UDC: 621.78.5

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

VOL'KHIN, B.A.; MOKHOV, A.I.; SUKHORUKOV, V.G.

New device for measuring the displacement of rocks in mine workings. Gor. zhur. no.6:71-72 Je '64. (MIRA 17:11)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti, Sverdlovsk.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOV, Anatoliy Aleksandrovich; SHELINSKIY, Georgiy Ivanovich; KHAGEMEYSTER, Ye., red.

[Systematic process of operations of the qualitative semi-microanalysis of cations and anions; a manual on qualitative analysis] Sistematicheskii khod kachestvennogo polumikro-analiza kationov i anionov; uchebnoe posobie po kachestvennomu analizu. Leningrad, Severo-zapadnyi zaochnyi in-t, 1964. 37 p. (MIRA 18:3)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MILLER, A.D.; MOKHOV, A.A.; TURYLEVA, L.V.

Method of determining microquantities of molybdenum in a superimposed salt halo. Geokhimiia no.7:610-615 '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki, Severo-zapadnoye geologicheskoye upravleniye, Leningrad.

(Molybdenum ores)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

Use of the Biogeochemical Method in Prospecting for Nickel on the Kola Peninsula SOV/7-59-3-8/13

centrations were found in the leaves of birch-trees; repeated taking of samples showed (Fig 6) that the nickel content is highest in summer and fall. In samples taken of the soil the layers having a thickness of from 0 to 3 cm, and from 3 to 20 cm were separated and extracted with weak solutions of hydrochloric acid of different pH value (Table 3). Solutions of pH 6 do not extract nickel, such of pH 3 about 45%, of pH 1.3 practically entirely. It must be pointed out that samples of plants and soils in damp areas have a higher nickel content. There are 8 figures, 3 tables, and 6 Soviet references.

ASSOCIATION: Leningradskiy ordena Trudovogo Krasnogo Znameni tekhnologicheskiy institut im. Lensoveta (Leningrad Order of the Red Labor Banner Technological Institute imeni Lensovet)

SUBMITTED: October 9, 1958

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

14(5)

AUTHORS: Aleskovskiy, V. B., Mokhov, A. A., Spirov, V. N. SOV/7-59-3-8/13

TITLE: The [illegible] of the Biogeochemical Method in Prospecting for Nickel on the Kola Peninsula (Ispol'zovaniye biogeokhimicheskogo metoda poiskov nikelya na Kol'skom poluostrove)

PERIODICAL: Geokhimiya, 1959, Nr 3, pp 266-272 (USSR)

ABSTRACT: Investigations were carried out of the nickel content in water, plants, and in the soil for four profiles. The water of the area investigated contains no nickel, which is probably due to the high pH value (Table 1) and the abundant precipitations. Only the most frequently occurring plants were investigated: fir-tree (pirus triesiana), the subarctic birch (betula subarctica), the stunted birch (betula tortuosa) and the bilberry (vaccinium myrtillus). Botanical determination of plants was carried out by the Polyarno-al'piyskiy botanicheskiy sad Kol'skogo filiala im. S. M. Kirova Akademii nauk SSSR (Arctic-Alpine Botanical Gardens of the Kola Branch imeni S. M. Kirov of the Academy of Sciences USSR). The nickel content is in each case shown graphically. The highest con-

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOV, A. A. Cand Chem Sci -- (diss) "Development of methods of the quantitative determination of nickel in natural water, vegetable matter, and soil." Len, 1959 19 pp with grphs (Min of Higher and Secondary Specialized Education RSFSR. Len Order of Labor Red Banner Technological Inst im Lensovet), 150 copies (KL, 48-59, 113)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

ALESKOVSKIY, V.B.; DOBYCHIN, S.L.; KEDRINSKIY, I.A.; MILLER, A.D.; MIKHEYEVA, A.I.; MOKHOV, A.A.; NAZAROVA, Z.N.

Determination of trace elements in natural waters after a preliminary concentration by the method of "sinking particles."
Trudy LTI no.48:12-21 '58. (MIRA 15:4)
(Trace elements) (Water, Underground)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOV, A.; OMELCHENKO, A.

"Optical instrument for measuring the radius of a curvature." P. 166.

JEMNA MECHANIKA A OPTIKA. (Ministerstvo presne ho strojirenstvi a Ustav pro vyzkum optiky a jemne mechaniky). Praha, Czechoslovakia, Vol. 4, No. 5, May 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August, 1959.
Uncla.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

L 40238-66

ACC NR: AP6019641

tion of the eutectic mixture was carried out in ampules 120 x 18 x 10 mm. Samples were selected every 10 mm in which the content of the calcium impurity was determined by the flame photometry method. The experiment showed that the zone melting method can reduce the content of the calcium impurity in strontium compounds. Thus, after three passes of the zone at a rate of 7 mm/hr the calcium content dropped to 0.004% at its initial value of 0.01%. A study of the effect of certain impurities on the effective coefficient of distribution of the calcium impurity when purifying the mixture $Sr(NO_3)_2 + KNO_3$, revealed that an increase in the content of zinc, iron, and nickel impurities lowers the efficiency of reducing the calcium impurity concentration. Orig. art. has: 1 table and 2 figures.

SUB CODE: 07,// SUBM DATE: 24Feb65/ ORIG REF: 006/ OTH REF: 006

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

L 40238-66 EWT(m)/EWP(t)/ETI/EWP(k) JD

ACC NR: AP6019641 SOURCE CODE: UR/0149/66/000/003/0081/0084

AUTHOR: Mokhosoyev, M. V.; Got'manova, T. T.

ORG: Donetsk Branch, All-Union Research Institute of Chemical Reagents and Especially Pure Substances (Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistykh veshchestv (Donetskiy filial))

TITLE: Zone purification of strontium nitrate

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 3, 1966, 81-84

TOPIC TAGS: strontium compound, nitrate, calcium compound, chemical purity, zone refining, METAL PURIFICATION

ABSTRACT: The zone melting method was used to investigate the feasibility of purifying compounds of strontium. On the basis of the physicochemical properties of strontium compounds, the eutectic mixture $Sr(NO_3)_2$ (55 wt. %) plus KNO_3 was selected for zone purification. The nitrates of strontium and potassium of analytical grade were used as the starting raw material. The eutectic mixture was prepared by fusing catalytic quantities of the components with subsequent holding at the melting point for 1 hr and slow cooling to room temperatures. The alloy was ground, charged into ampules, and the ampules sealed. Zone purifica-

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UDC: 669.2/.8.892

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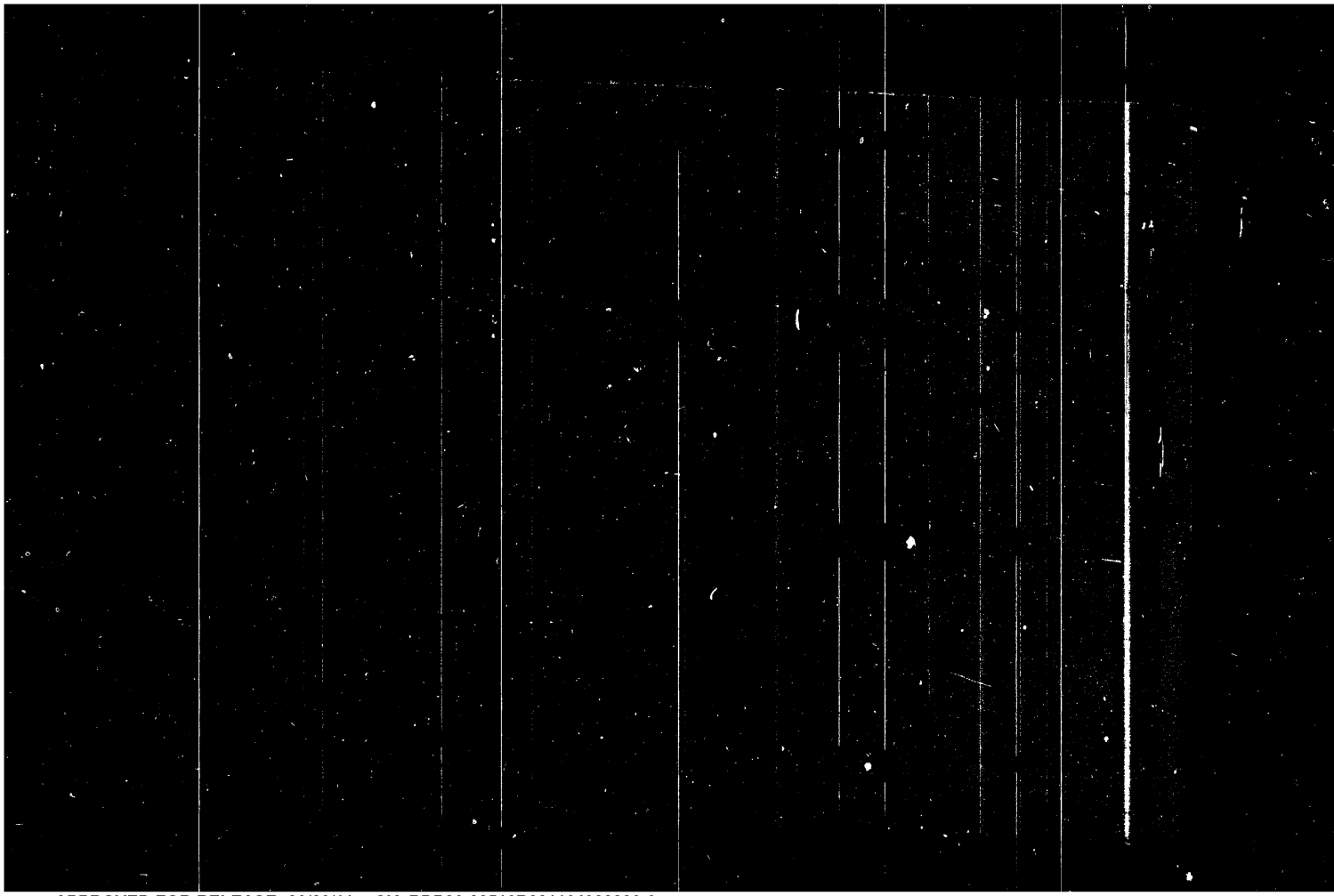

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МОУНОSОУЯУ, М.Ф.

Production of antimony trichloride from antimony [illegible]
Zhur.prikl.khim. 30 no.5:[illegible] Je '57. (MIRA 10:10)

1. Nerekskiy f. Ural'skogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov i osobo chistykh veshchestv.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOSOYEV, M.V., ALEYKINA, S.Ya.

Reaction of chromium oxide with sodium and potassium carbonates.
Zhur. neorg. khim. 10 no.2:363-365 F '65. (MIRA 18:11)

1. Donetskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov i osobo chistykh veshchestv.
Submitted May 10, 1963.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOSOYEV, M.V.; GOT'MANOVA, T.T.; KOKOT, I.F.

Removal of strontium and barium impurities from calcium nitrate by zone recrystallization. Zhur. neorg. khim. 9 no.11:2518-2525 N '64. (MIRA 18:1)

1. Donetskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv.

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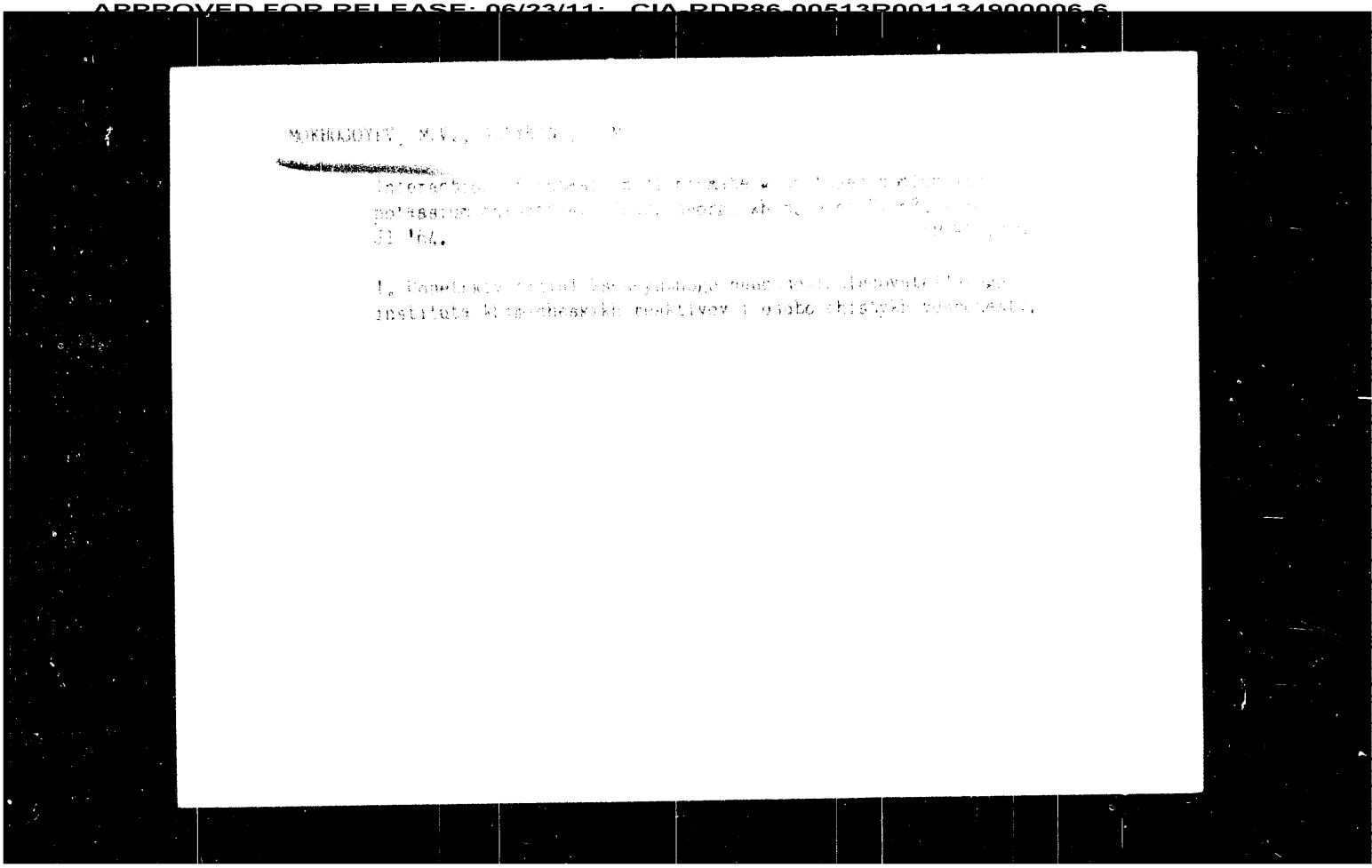

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ACCESSION NR: AP4009353

different congruent or incongruent melting points and that purification of sodium ditungstate from Fe, Mg and Cu by zone melting is possible. Orig. art. has: 1 figure, 2 tables.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. Lomonosova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 04Jan63 DATE ACQ: 07Feb64 ENCL: 00

SUB CODE: CH NR REF SOV: 006 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

ACCESSION NR: AP4009353 S/0078/64/009/001/0169/0172

AUTHORS: Mokhosoyev, M. V.; Fedorov, P. I.

TITLE: Interaction of sodium ditungstate with ferrous, magnesium and cupric tungstates

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 1, 1964, 169-172

TOPIC TAGS: sodium ditungstate, ferrous tungstate, magnesium tungstate, cupric tungstate, sodium ditungstate purification

ABSTRACT: The purpose of this work is a method of purification of sodium ditungstate from admixtures of Cu, Mg, Fe and Pb by means of zone melting. The assumption is that they are present in the form of their tungstates, while silicon and chromium are present in the form of sodium silicate and chromate. Their interaction in melts was studied by preparing phase diagrams of binary melts of the above components with sodium ditungstate. Eutectic, liquidus, and polymorphic transformation temperatures were observed. It was revealed that the components of the tungstate compounds formed have

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

AUTHOR: Gabrel', I.

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistikh khimicheskikh veshchestv. Donetskiy filial. (All-Union Scientific Research Institute of Chemical Reagents and Ultrapure Chemical Substances. Donets branch)

SUBMITTED: 15Jun63 ATD PRESS: 3080 ENCL: 00

SUB CODE: MM, IC NO REF SOV: 001 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

Sovetskaya metallurgiya, no. 3, 1964, 53-55

TOPIC TAGS: nickel oxide, pure nickel oxide, nickel nitrate hydrate, nickel nitrate purification, zone melting, impurity removal

ABSTRACT: The zone refining of hydrate of nickel nitrate (an initial material from which semiconductor-quality nickel oxide is obtained) is described. The nickel-nitrate hydrate ($Ni(NO_3)_2 \cdot 6H_2O$ without cobalt) was sealed in a test tube and subjected to zone melting. Calcium was the most easily removed. One pass lowered the calcium content from 0.027% to 0.0032%. The removal of cobalt, copper, and magnesium was less effective. The cobalt content (0.006%) could be reduced to 0.004% in three passes. The magnesium content decreased from 0.014% to 0.010% after one pass and to 0.008% after five passes. The copper content was approximately 0.0048%, and after ten passes could be reduced only to 0.0043%. After zone melting the refined

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ACCESSION NR: AP4009845

passage at a zonal speed rate of 7 mm per hour) reduced to 0.060%, and after 10 passages at 30 mm/hr to 0.018%. The eutectic blend of $Ba(NO_3)_2$+$BaCl_2$ contained 62 Mol% $Ba(NO_3)_2$ and had a melting point of 497C. The length of the combustion boat was 100 mm, and the length of the fused zone was kept at 10 mm. Five passages at 30 mm/hr reduced the calcium content from the initial 0.17% to 0.044%. The effect of the addition of 0.1% $Mg(NO_3)_2$ and $Sr(NO_3)_2$ on the removal of calcium from the $Ba(NO_3)_2$+KNO_3 eutectic blend was investigated, and favorable results were obtained. Orig. art. has: 1 table.

ASSOCIATION: Donetskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reactivov i osobo chisty*kh veshchestv (Donets Branch of the All-Union Scientific Research Institute of Chemical Reagents and High Purity Substances)

SUBMITTED: 08Apr63	DATE ACQ: 07Feb64	ENCL: 00
SUB CODE: CH	NO REF SOV: 006	OTHER: 006

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

ACCESSION NR: AP4009845 S/0149/63/000/006/0120/0123

AUTHORS: Mokhosoyev, M. V.; Got'manova, T. T.

TITLE: Purification of barium compounds from admixtures of calcium by the method of zonal fusion

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 6, 1963, 120-123

TOPIC TAGS: barium, barium compound, barium nitrate, barium chloride, potassium nitrate, calcium, strontium, magnesium, purification, eutectic mixture, fusion, zonal fusion

ABSTRACT: The purification of barium nitrate was conducted in eutectic blends with potassium nitrate or barium chloride by the method of zonal fusion. The eutectic blend of $Ba(NO_3)_2$+KNO_3 contained 12 Mol/% $Ba(NO_3)_2$, and had a melting point of 285.7C. It was placed in 120-mm ampules, and the length of the fused zone was kept constant at 30 mm. It was found that the initial admixture of calcium of 0.018% was reduced to 0.0018% after one passage at a zonal speed rate shift of 7 mm per hour and to 0.0012% after 5 passages at a rate of 30 mm per hour. The purification of samples with an initial calcium content of 0.34% (after one

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MOKHOSOYEV, M.V.; GOT'MANOVA, T.T.

Preparation of high-purity substances with the zone melting method. Prom.khim.reak. i osobo chist.veshch. no.3:5-21 '63. (MIRA 17:4)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOSOYEV, M.V.; KULESHOV, I.M.; FEDOROV, P.I.

Thermographic investigation of the systems consisting of potassium tetramolybdate - potassium carbonate and potassium tetratungstate - potassium carbonate. Zhur.neorg.khim. 7 no.7:1628-1631 Jl '62. (MIRA 16:3)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosva.
(Potassium carbonate) (Molybdates) (Tungstates) (Thermal analysis)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

S/136/62/000/003/004/008
E021/E435

Zone-refining of acid tungstates

compounds contain small quantities of lead, iron, chromium, silicon and other elements which could affect the distribution coefficient of molybdenum. Experiments on sodium ditungstate showed that small quantities of lead or magnesium increased the degree of purification from molybdenum, whereas silicon and copper lowered the efficiency of purification. The coefficients of distribution K for other elements were also calculated (Table 4). The described method can also be used for purification of molybdenum compounds from tungsten. There are 4 tables.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

S/136/62/000/003/004/008
E021/E435

18.3700

AUTHORS: Fedorov, P.I., Mokhosoyev, M.V.

TITLE: Zone-refining of acid tungstates

PERIODICAL: Tsvetnyye metally, no.3, 1962, 61-66

TEXT: Zone-refining experiments were carried out on tungsten compounds ($Na_2W_2O_7$; $K_2W_4O_{13}$; $NaPO_3 \cdot WO_3$) to remove isomorphous impurities of molybdenum. In the experiments, quartz and platinum boats on a horizontal apparatus were used. The zone refining was followed by spectrographic analysis. The most efficient purification from molybdenum occurred with the smallest zone-width and the lowest rate of traverse; the best results being obtained from a zone of 10 mm and a rate of 2 cm/hour. The coefficients of distribution for molybdenum under these conditions were 0.37, 0.20 and 0.60 for $Na_2W_2O_7$, $K_2W_4O_{13}$ and $NaPO_3 \cdot WO_3$, respectively. With increasing Mo concentration up to 1%, the coefficient of distribution decreased. Thus, for a zone of 15 mm and a rate of traverse of 2 cm/hour across $Na_2W_2O_7$ the coefficient was 0.8, 0.72, 0.64, 0.59 and 0.52 for 0.098, 0.015, 0.08, 0.5 and 0.95 % Mo, respectively. Almost all tungsten

Card 1/2

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FEDOROV, P.I.; MOKHOSOYEV, M.V.

Phase diagram of the system potassium tetratungstate - potassium tetramolybdate. Zhur.neorg.khim. 6 no.4:1009-1011 Ap '61. (MIRA 14:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova.
(Potassium tungstate) (Potassium molybdate)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

MOKHOSOYEV, M.V.; FEDOROV, P.I.

Interaction of sodium carbonate with sodium ditungstate and sodium dimolybdate. Zhur. neorg. khim. 6 no.1:243-246 '61. (MIRA 14:2)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.

(Sodium carbonate) (Sodium tungstate)
(Sodium molybdate)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900006-6

FEDOROV, P.I.; MOKHOSOYEV, M.V.

Phase diagram of the system sodium ditungstate - sodium dimolybdate.
Zhur. neorg. khim. 6 no.1:242-243 '61. (MIRA 13:8)
(Sodium tungstate) (Sodium molybdate)

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Obtaining pure compounds of tungsten; a survey. Trudy BKNII no.[58-71 '61. (MIRA 18:2)

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diagrams of systems $Na_2W_2O_7$ - Na_2CrO_4; $Na_2W_2O_7$ - Na_2SiO_3; $Na_2W_2O_7$ - $PbWO_4$ were plotted which show that 1) during the interaction of sodium ditungstate with sodium chromate compound $2Na_2W_2O_7 \cdot 3Na_2CrO_4$ is formed (at 60 mol.% sodium chromate), which melts congruently at 650°C; 2) during the interaction of sodium ditungstate with sodium silicate, compound $Na_2W_2O_7 \cdot Na_2SiO_3$ is formed (at 50 mol.% sodium silicate), which melts incongruently at 700°C; 3) during the interaction of sodium ditungstate with lead tungstate, compound $Na_2W_2O_7 \cdot PbWO_4$ is formed (at 50 mol.% lead tungstate) in the solid phase. There are 3 figures, 1 table and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc.

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